

In the claims

Please cancel claims 1-20 without prejudice.

Please add the following new claims 21-42 as follows:

21. (New) A broad screen analytical detection element, capable of detection of several classes of gas or liquid analytes, said detection element comprising

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a first region comprising a solid and adsorbed on said solid a radiant energy-detectable material or a material capable of producing a radiant energy-detectable material, wherein said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material is displaceable by a target analyte; and

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a second region for sequestering radiant energy-detectable material displaced from or produced by material displaced from said solid prior to detection of said radiant energy-detectable material,

wherein either said first region or said second region further comprises a high boiling plasticizer/solvent.

112

22. (New) The analytical detection element of claim 21 wherein said solid is selected from the group consisting of activated carbon, silica, alumina, ion exchange resin, molecular sieve and particulate organic polymeric adsorbent.

23. (New) The analytical detection element of claim 21 wherein said detection element is multi-layered and said first region and said second region are in separate layers in said detection element.

24. (New) ~~The~~ analytical detection element of claim 21 wherein said detection element is a single layer.

sub 3247 25. (New) The analytical detection element of claim 21 wherein said detection element is in a single layer that can be applied to a surface as a coating material.

26. (New) The analytical detection element of claim 21 wherein said detection element is in multiple small pieces.

27. (New) A broad screen analytical detection element, capable of detection of several classes of gas or liquid analytes, said detection element comprising

a first region comprising a solid and adsorbed on said solid a radiant energy-detectable material or a material capable of producing a radiant energy-detectable material, wherein said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material is displaceable by a target analyte; and

a second region for sequestering radiant energy-detectable material displaced from or produced by material displaced from

2027
said solid prior to detection of said radiant energy-detectable material,

wherein said detection element is in the form of multiple small pieces.

28. (New) The analytical detection element of claim 21 further comprising a background region against which radiant energy-detectable material can be detected.

29. (New) The analytical detection element of claim 21 wherein a material capable of producing a radiant energy-detectable material is adsorbed on said solid and said material capable of producing a radiant energy-detectable material is capable of initiating a chemical reaction or physical process that results in a change in a radiant energy-detectable material residing in said second region.

30. (New) A multi-layer broad screen analytical detection element comprising

a transparent base layer;

a concentrating or mordanting layer coated on said base layer;

an opacifying or reflecting layer coated on said concentrating or mordanting layer; and

a sample capture layer coated on said opacifying or reflecting layer, said sample capture layer comprising a solid,

and adsorbed on said solid a radiant energy-detectable material or a material capable of producing a radiant energy-detectable material, wherein said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material is displaceable by a target analyte, and

wherein said detection element further comprises, in one of said layers, a high boiling plasticizer/solvent.

31. (New) The multi-layer detection element of claim 30, wherein said sample capture layer is near the top of the layer stack of said detection element.

32. (New) The multi-layer detection element of claim 30, wherein said sample capture layer is at the top of the layer stack of said detection element.

33. (New) A broad screen analyte detection badge comprising the multi-layer analytical detection element of claim 30.

34. (New) A broad screen analyte detection badge comprising the analytical detection element of claim 21.

35. (New) A container for detecting an analyte in the vapor phase, said container comprising
a sealable container body in which can be placed a liquid or solid to be analyzed for the presence of a volatile analyte;

a container cap with which said container body can be sealed; and

a multi-layer broad screen analytical detection element comprising

a transparent base layer;

a concentrating or mordanting layer coated on said base layer;

an opacifying or reflecting layer coated on said concentrating or mordanting layer; and

a sample capture layer coated on said opacifying or reflecting layer, said sample capture layer comprising a solid, and adsorbed on said solid a radiant energy-detectable material or a material capable of producing a radiant energy-detectable material, wherein said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material is displaceable by a target analyte, and

wherein said detection element is positioned on an interior surface of one of said container body or said container cap.

36. (New) A container for detecting an analyte in the vapor phase, said container comprising

a sealable container body in which can be placed a liquid or solid to be analyzed for the presence of a volatile analyte;

a container cap with which said container body can be sealed; and

a broad screen analytical detection element comprising

a first region comprising a solid and adsorbed on said solid a radiant energy-detectable material or a material capable of producing a radiant energy-detectable material, wherein said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material is displaceable by a target analyte; and

a second region for sequestering radiant energy-detectable material displaced from or produced by material displaced from said solid prior to detection of said radiant energy-detectable material,

wherein said detection element is positioned on an interior surface of one of said container body or said container cap.

37. (New) A coating material comprising the broad screen analytical detection element of claim 21.

38. (New) A broad screen method for detection of one or more analytes or classes of analytes, said method comprising the steps of:

providing an analytical detection element, said detection element comprising a solid and adsorbed on said solid a radiant energy-detectable material or a material capable of producing a radiant energy-detectable material, wherein said radiant energy-detectable material or said material capable of producing a

radiant energy-detectable material is displaceable by a target analyte;

exposing said analytical detection element to a population of molecules possibly containing said target analytes for a period of time sufficient to permit displacement by said target analytes of said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material from said solid, wherein said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material displaced by said target analyte is made mobile by the presence of a high boiling plasticizer/solvent;

determining the amount of said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material displaced from said solid; and

correlating the amount of said radiant energy-detectable material or said material capable of producing a radiant energy-detectable material displaced from said solid with the amount of target analyte present in said population of molecules.

39. (New) The method of claim 38 wherein, in said providing step, said solid in said analytical detection element is selected from the group consisting of activated carbon, silica, alumina, ion exchange resin and molecular sieve.

40. (New) The method of claim 38 wherein, in said providing step, said analytical detection element is multi-layered and

said first region and said second region are in separate layers in said detection element.

41. (New) The method of claim 38 wherein, in said providing step, said analytical detection element further comprises a background region against which radiant energy-detectable material can be detected.

42. (New) The method of claim 38 wherein, in said analytical detection element in said providing step, a material capable of producing a radiant energy-detectable material is adsorbed on said solid and said material capable of producing a radiant energy-detectable material is capable of initiating a chemical reaction or physical process that results in a change in a radiant energy-detectable material residing in said second region.
